

a series about managing your land for wildlife

Gimme Shelter Shelterbelts & Food Plots for Wildlife



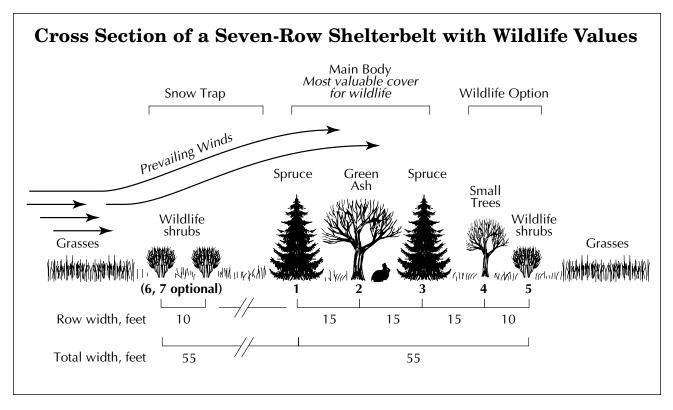
Shelter from a Storm

A Seven-row Shelterbelt

In general, shelterbelts for farm and homestead purposes are considered complete with three rows of trees, but if you add a few more rows of wildlife trees and shrubs, you will create more ground-level shelter for small mammals such as rabbits, squirrels and mice, and more nesting cover for songbirds. If your shelterbelt is located near your homestead, this means more wildlife viewing opportunities. Shelterbelts also provide benefits to a wide range of wildlife, from saw-whet owls and dark-eved juncos to deer, pheasants and ground-nesting birds. During summer, shelterbelts are home to over 90 types of birds and can support as many as 17 nesting pairs of birds per acre. And, when songbirds and warblers migrate during spring and fall, shelterbelts live up to their name—they provide shelter for these travel-weary wanderers.

To build a seven-row shelterbelt with wildlife benefits, start from the north and/or west side and plant two rows of wildlife shrubs, such as ninebark, serviceberry or one of the viburnums. Planted 50 feet from the main body of the shelterbelt, these trees trap snow before it reaches the shelterbelt proper. This increases the shelterbelt's winter cover value and reduces damage to trees from heavy snowloading.

For the main course of the shelterbelt, plant at least three rows of evergreens or fast-growing leafy trees. Stagger the trees in these rows to provide maximum growth and wind protection. Plant the rows about 15 feet apart. White or Norway spruce make good choices for the innermost and outermost rows. Spruce can take the shade and will retain even their lowest branches—excellent



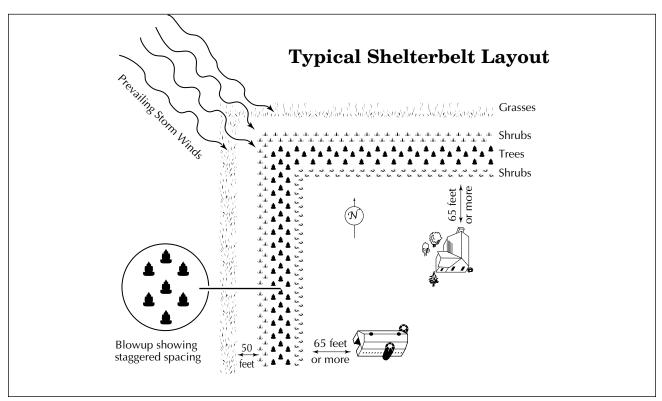
shelter for ground-dwelling birds and mammals. For the interior tree row, plant fast-growing, tall trees. Hybrid poplars, green ash, and white or red pine are good selections. However, stay away from Lombardy poplar. They are susceptible to European Canker disease and often die within six or seven years.

Plant a row of taller shrubs, or small trees such as silky dogwood or one of the crabapples, about 15 feet from the spruces that are on the side protected from the wind. Space these tall shrubs six feet from each other. Plant another row of short shrubs, three or four feet apart from each other, and 10 feet from the previous row.

On either side of the shelterbelt, allow heavy stands of sunflowers, fireweed, giant ragweed or other seed-bearing plants to grow. These plants will provide excellent protection from bad weather as well as seeds for wildlife food. Switch grass, big bluestem, Indian grass and

wheat grass also provide good winter cover. Always properly space trees and shrubs when planting. Planting them close together with the idea of thinning them after they've become established is a poor practice. Still, some trees may require thinning as the stand matures. Thin pines before their needles touch, or they will wear themselves off or get shaded out, eliminating the low cover that many wildlife species need from the shelterbelt. You can also thin leafy trees to keep them healthy and to encourage shrubs, grasses and wildflowers to grow in the new openings.

This seven-row design is much more extensive than a typical three-row farm shelterbelt, but its benefits to wildlife will be tremendous. If you cannot afford the time or money to plant the seven-row shelterbelt, the five-row design, without the snow trap, is still adequate. And even one or two rows provide some benefit to wildlife.



Adapted by permission from Minnesota and Wisconsin DNR.

Where the Wind Blows: Placement of Shelterbelts

Shelterbelt locations are usually determined by the prevailing wind direction and the location of your homestead. However, some locations are more beneficial to wildlife. Here are some tips to keep in mind when planning where to plant a shelterbelt.

- Locate shelterbelts on the north side of row crop fields that will not be fall-plowed. This will help keep snow from burying the stubble and increase its value to wildlife.
- Plant shelterbelts in conjunction with existing permanent cover such as woody ravines, woodlots or marshes. Wildlife will use shelterbelts as travel lanes between a variety of cover types if they are situated properly.
- Small shelterbelts planted on the north or west side of a farm lane will keep snow drifts from piling up and provide a travel lane for wildlife—a living snow fence!

When Shelterbelts Hurt Wildlife

Shelterbelts can actually hurt wildlife, especially if planted on large open grasslands. Large grasslands are rare and so are the wildlife that depend on them. Prairie chickens, for example, once roamed throughout south central Wisconsin's prairie region, but now live in just a few central Wisconsin counties. These plump birds prefer large, open grasslands where they can see the horizon. Shelterbelts and tall hedgerows obscure the view, making grassy areas less attractive to prairie chickens and other grassland wildlife. Trees and tall shrubs also make excellent perches for hungry hawks, increasing the risk of predation. If you live in an area of extensive grassland or pasture, consult your local DNR wildlife manager before planting





On winter evenings you can commonly startle up cardinals, juncos, tree sparrows or chickadees as you walk by a hedgerow. It's fun to watch these birds as they flit from one branch to another in short flights along the hedgerow.

Hedging Around

Hedgerows are shelterbelts without trees; you plant them in a similar fashion. They provide travel lanes between two habitats, cover for a variety of wildlife, as well as a colorful addition to your landscape.

In the early stages of shrub growth, hedgerows and their grassy understory are used by cottontails, thirteen-lined ground squirrels, chipmunks and other small mammals for burrows, nest sites, and protection from hawks and owls. When surrounding hayfields are harvested, broods of pheasants escape into the brushy shelter. As hedgerows of ninebark, highbush cranberry, nannyberry and dogwoods become brushier and tangled with wild grape, bittersweet and Virginia creeper, their value as loafing places, especially during winter, increases. A variety of songbirds, such as cardinals, chipping sparrows, brown thrashers and catbirds nest in mature hedgerows.

When choosing plants for your hedgerow, keep in mind that if you want a spring explosion of colors and fragrances, then plant crabapples and elderberries. For fall reds and purples, plant viburnums, sumacs and dogwoods. Even in winter, the blood-red bark of red-osier dogwood and the neon-red highbush cranberry can provide dramatic color in an otherwise snowy-white scene. For more information, see **So What Should I Plant:**Trees, Shrubs and Vines with Wildlife Values in this Wildlife and Your Land Series.

As with other linear habitats, one problem with hedgerows is that foxes, raccoons, opossums, skunks and other nest predators or nuisance wildlife readily use hedgerows for den sites and for seeking out prey.

Making a Good Thing Better

If you have an old hedgerow with large, overgrown shrubs, you can revitalize it by cutting back the old shrubs. Do this in small sections every five or ten years so that wildlife can use the food and cover in the uncut sections while the cut sections grow back. Though you may be timid about drastically cutting back the very shrubs you planted and watched grow, you will be well rewarded if you take this step. Shrubs bounce back healthier and more fruitful than ever when they are severely pruned—even if you cut the shrubs down to nothing but stumps.

Food for Thought

Food Plots

Winter is the most critical time of year for wildlife, not only because the cold weather creates more stress and a higher demand for food, but because less food is actually available. Planting food for wildlife can help ease winter stress, especially from late winter snowstorms.

Food is seldom a problem in late spring, summer or fall when leaves, fruits, seeds, acorns, nuts, insects and prey animals provide nourishment aplenty. Ragweed, foxtail, lespedeza, thistle, sunflowers and other annual weeds and grasses also provide an important source of seeds for birds. In agricultural areas, untilled fields can provide pheasants, doves, deer, squirrels and mice with food in late fall and before winter snows. Hay and clover fields also supply food and shelter. But once covered by deep snow, fields and grassy areas become habitat deserts. And animals that do scratch food to the snowwhite surface, make easy targets for passing predators.

Survival Fare

How important are food plots to wildlife survival? Very. When natural food supplies are scarce, food plots can help animals put on and keep body fat. Extra body fat can help animals avoid hypothermia or death from exposure and sustain an animal for days—even weeks—without food.

Without the extra energy boost that food plots provide, animals enter the spring breeding season in much poorer shape. For pheasants, quail and wild turkeys, stressed hens will delay egg laying, which reduces the chances of them laying a second clutch (should the first nest be destroyed). In addition, winter-weary hens are more likely to die of normal summer stresses such as molting, heat and disease. Since the chicks born of these hens will also have a higher mortality rate, food plots can make a difference in these populations of birds.

Where to Plant

If given a choice, wildlife will always choose shelter before food. Food plots must be planted near some sort of permanent cover, such as a shelterbelt, marsh, clump of trees and shrubs or woodlot—any place that will not drift completely over with snow. The following list offers a few tips on planting food plots for wildlife:

Planting Tips



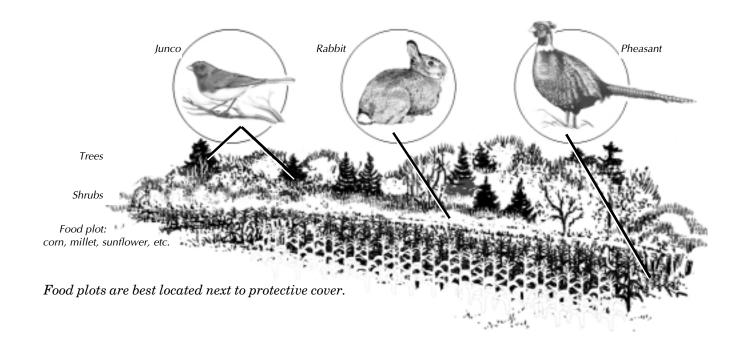
Fertilize and plant just as you would for any other crop.



Plant a few smaller food plots, about one-half to one acre in size, rather than one large plot. However, in places where cover is scarce or snowfall is very deep, larger food plots of five acres or more can provide some benefits to wildlife.



For pheasants, locate food plots within one-quarter mile of good winter cover such as lowland brush, heavy stands of aster and lowland grasses, cattail, or tamarack swamps.





Plant fast-maturing grain varieties. Corn is the first choice for larger birds such as pheasants and turkeys as well as deer. Short maturity sorghum-sudan hybrids are second, while soybeans, winter rye, winter wheat, sunflower, and flax show promise.



Songbirds prefer smaller grains such as millet, wheat, rye and buckwheat.

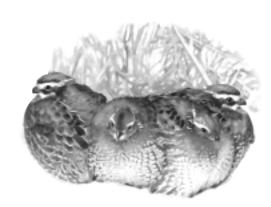
If wildlife aren't attracted to your food plot right away, don't worry. It often takes three years or more to develop a new flock or a new tradition of feeding. For assistance with establishing food plots, contact your local U.S.D.A. office, or give your local Pheasants Forever chapter a call. Your local wildlife manager should have the names and phone numbers of members in this and other organizations who could assist you in making your land more attractive to wildlife. They're also listed in **Getting the Help You Need** in this *Wildlife and Your Land* series.

Winter can be merciless. You can counter this by planting shelterbelts, hedgerows and food plots. Though labor intensive to build, they provide much needed food and shelter for a diversity of Wisconsin wildlife during the snowiest months of the year. They're well worth the investment.













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